

WHAT IS CLAIMED IS

1. A computer system having an application workload profiling capability comprising:

an operating system facility for tracking resource usage by objects using said resource in said computer system and making a data record of said tracking,

a snapshot capture program for capturing said usage tracking data for all said each objects running during a functional operation of said computer system, wherein said snapshot capture program captures a first snapshot capture file that includes usage tracking data in an active phase for all objects using resources during use of a program to be profiled while under load and wherein said snapshot capture program is also for capturing a second snapshot capture file of usage tracking data for objects using resources during an active phase for all object using resources during a second condition of said computer system,

an arithmetic process for subtracting said second snapshot capture file from said first snapshot capture file.

2. The computer system of claim 1 wherein said second condition is an idle condition.

3. A computer program as set forth in claim 1 wherein said first condition is also running a second applications program and said second condition is only running said second application program.

4. The computer system of claim 1 wherein said computer system further comprises a client facility for recording said data record of said usage tracking into a record file.

5. The computer system of claim 1 wherein said snapshot capture program captures said first and second snapshot using substantially identical amounts of time during functional operation for said snapshot.

6. The computer system of claim 1 wherein said resource usage object is CPU processing.

7. The computer system of claim 1 wherein said resource usage object is I/O handling.

8. The computer system of claim 1 wherein said resource usage object is a plurality of objects and usage tracking data for each of said plurality is identifiable.

9. The computer system of claim 1 wherein said resource usage object is all processes whose resource usage is tracked by an Operating System function.

10. The computer system of claim 1 further comprising means for revealing primary processes used in active phase and an amount of resource used by said primary resources by said application program and means for producing a report having a resource usage profile for said application program from said revealed data.

11. The computer system of claim 10 having a billing program that uses data from said resource usage profile for said application program to identify charge backs for usage of said application program billing.

12. The computer system of claim 10 wherein a billing factor is created from said resource usage profile for said application program, and said billing factor is applied to a total amount of resource usage by a billing program to generate charge backs to users of said application program.

13. A computer program having an application workload profiling capability for use with a commodity operating system wherein said operating system has an operating system facility for tracking resource usage of said resource in said computer system and making a data record of said tracking, comprising:

a snapshot capture program for capturing said usage tracking data for all said each processes running during a functional operation of said computer system, wherein said snapshot capture program captures a first snapshot capture file that includes usage tracking data in an active phase for all processes running during use of a program to be profiled under load and wherein said snapshot capture program also captures a second snapshot capture file of usage tracking data for processes running during an active phase of said computer system in a different condition, and

an arithmetic mechanism for subtracting said second snapshot capture file from said first snapshot capture file.

14. A computer program as set forth in claim 13 wherein said second condition is an idle condition.

15. A computer program as set forth in claim 13 wherein said first condition is also running a second applications program and said second condition is only running said second applications program.

16. A computer readable medium having a program contained therein which when loaded into a general purpose computer system will provide the functionality to said general purpose computer system of the computer program of claim 13.

17. A computer readable medium having a program contained therein which when loaded into a general purpose computer system configures said general purpose computer system to operate as a computer system as set forth in claim 1.

18. A method for establishing a charge back billing amount from a user of a computer system based on an application program workload for said user on said computer system comprising:

obtaining from an operating system facility for tracking resource usage by each process used by said application program a snapshot of said process usage by resource,

applying a predetermined billing factor for said application program against said snapshot,

producing from said application a charge back amount for charging said customer.

19. The method of claim 18 wherein said predetermined billing factor is determined based on a resource usage profile of said application program.

20. A method of applications program workload profiling comprising;

obtaining a data record of object usage from an operating system facility for tracking resource usage by each object using said resource in said computer system and making a data record of said tracking, said obtaining capturing;

a first snapshot of usage data for all said each objects running during a functional active phase operation of said computer system by said applications program, and a second snapshot of usage data for all said each objects running during a functional idle phase of said computer system, and

comparing said idle phase second snapshot from said idle phase to said active phase first snapshot of said active phase to reveal which of said objects are using said resource while in said active phase.

21. The method of claim 20 wherein said idle phase snapshot and said active phase snapshot are of equal duration.

22. The method of claim 20 where said revealed objects using said resource in said active phase are identified by proportionate value of resource usage.

23. The method of claim 22 wherein said proportionate value of resource usage is used to establish a billing factor.

24. The method of claim 23 wherein proportionate value of resource usage by said applications program is used to establish a baseline workload profile for said applications program.

25. The method of claim 24 wherein said baseline workload profile is compared to a monitored workload profile in a commercially used system to determine if a change is occurring to said profile.

26. The method of claim 25 wherein if a change is occurring in said workload profile, a message is sent to an entity responsible for said computer system.

27. The method of claim 23 wherein said resource usage object is CPU processing.

28. The method of claim 23 wherein said resource usage object is I/O handling.

29. The method of claim 23 wherein said resource usage object is a plurality of objects and usage tracking data for each of said plurality is identifiable.

30. The method of claim 21 wherein said resource usage object is all processes whose resource usage is tracked by an Operating System function.

31. A method of profiling a first applications program workload comprising; obtaining a data record of object usage from an operating system facility for tracking resource usage by each object using said resource in said computer system and making a data record of said tracking, said obtaining capturing;

 a first snapshot of usage data for all said each objects running during a functional active phase operation of said computer system by said first applications and a second applications program, and a second snapshot of usage data for all said each objects running during a functional active phase of said computer system by a second applications program, and

 comparing said functional active phase second snapshot to said functional active phase first snapshot to reveal which of said objects are using said resource while in said active phase.